

RESPONSE TO OFFICE ACTION

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REMARKS

This response is intended as a complete response to the Office Action dated September 29, 2005. In view of the following discussion, the Applicants believe that all claims are in allowable form.

CLAIM AMENDMENTS

Claims 9, 13, and 15 have been amended to more clearly recite aspects of the invention and to correspond with the amendment made to claim 1. The Applicants submit that no new matter has been added by these amendments.

Claims 8, 11-12, and 23 have been cancelled without prejudice.

CLAIM REJECTIONS**§112 Claims 24 and 25**

Claim 25 is rejected under 35 USC §112, first paragraph as based on a disclosure which is not enabling. In response, the Applicants have amended claim 25 to more clearly recite aspects of the invention.

In particular, claim 25 has been amended to properly depend from claim 24. As such, the "fifth level" recited in claim 25 follows from the first, second, third, and fourth levels recited in claim 24. Thus, the Applicants submit that claim 25 satisfies the requirements of 35 USC §112 and is patentable thereunder.

Claim 24 is rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In response, the Applicants have amended claim 24 to properly depend from claim 17.

This amendment provides proper antecedent basis for the term "the crust" recited in claim 24. As such, the Applicants submit that claim 24 satisfies the requirements of 35 USC §112 and is patentable thereunder.

Thus, claims 24 and 25 conform to the requirements of 35 USC §112 and are patentable thereunder. Accordingly, the Applicants respectfully request that the rejection be withdrawn and the claims allowed.

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§102 Claims 1, 3-5, 7-11, 15-16, 18-23, and 26

Claims 1, 3-5, 7-11, 15-16, 18-23, and 26 stand rejected under 35 USC §102(b) as being anticipated by United States Patent Application Publication 2001/0027023, issued October 4, 2001 to *Ishihara* (hereinafter *Ishihara*). With respect to claim 16, 18-23, and 26, the Applicants respectfully disagree. In response, the Applicants have amended claim 1 to more clearly recite aspects of the invention. Also, as noted above, claims 8, 11, and 23 have been cancelled.

With respect to 35 USC §102, or "anticipation," the Federal Circuit has repeatedly stated that "there is no anticipation unless all of the same elements are found in exactly the same situation and united in the same way . . . in a single prior art reference." *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 894 (Fed. Cir., 1984); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 U.S.P.Q. (BNA) 781, 789 (Fed. Cir. 1983). Here, *Ishihara* does not identify each of the claimed elements as arranged in independent claims 1 and 16 so as to establish a *prima facie* case of anticipation.

Independent claims 1 and 16 recite limitations not thought or suggested by *Ishihara*. *Ishihara* discloses a method of producing a semiconductor device including a step of removing a photoresist layer using a plasma and monitoring the plasma for optical emissions during the process. However, *Ishihara* fails to teach or suggest monitoring the plasma for both a hydrogen optical emission and an oxygen optical emission while etching, as recited in independent claims 1 and 16.

The Examiner cites to paragraph 136 to assert that *Ishihara* teaches monitoring the plasma for hydrogen and oxygen optical emissions. However, the Applicants respectfully disagree. The paragraph cited by the Examiner recites, in part, "...measure the intensity of light at the emission peak wavelength of hydrogen atoms..., the emission peak of wavelength of oxygen atoms..., the emission peak wavelength of CO..., or the like,...." As such, *Ishihara* fails to teach or suggest monitoring the plasma for both a hydrogen optical emission and an oxygen optical emission, as recited in independent claims 1 and 16.

Thus, independent claims 1 and 16, and all claims respectively depending therefrom, are patentable over *Ishihara*. Accordingly, the Applicants respectfully request that the rejection be withdrawn and the claims allowed.

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§103 Claims 2, 6, 12-14, 17, 24-25

Claims 2, 6, 12-14, 17, 24-25 stand rejected under 35 USC §103(a) as being obvious in light of *Ishihara* in view of United States Patent Application Publication 2002/0151156, published October 17, 2002 to *Hallock, et al.* (hereinafter *Hallock*). The Applicants respectfully disagree. Also, as noted above, claim 12 has been cancelled.

Independent claims 1 and 16, from which the above-rejected claims respectively depend, recite limitations not taught by any combination of the cited art. The teachings of *Ishihara* have been discussed above. *Hallock* discloses a process for the removal of photoresist after post-ion implantation. However, *Hallock* fails to teach or suggest a modification to the teachings of *Ishihara* that would result in method of removing a photoresist layer including a step of monitoring the plasma for both a hydrogen optical emission and an oxygen optical emission, as recited in independent claims 1 and 16. As such, a *prima facie* case of obviousness has not been established because the combination of the cited references fails to yield all of the limitations recited in independent claims 1 and 16.

Thus, claims 2, 6, 13-14, 17, 24-25 are patentable over *Ishihara* in view of *Hallock*. Accordingly, the Applicants respectfully request that the rejection be withdrawn and the claims allowed.

NEW CLAIMS:

New claims 27 through 30 have been added to the application. The Applicants submit that these claims are supported by the specification and that no new matter has been added. Claims 27 and 28 depend from claim 1, and claims 29 and 30 depend from claim 16. The Applicants submit that these claims are patentable at least for the reasons discussed above. Moreover, the Applicants submit that these claims are patentable over the cited art because the cited art fails to teach or suggest determining from at least one of the monitored optical emissions whether a cleaning cycle is necessary, whether components within the chamber are degrading, or both as recited in each of claims 27 and 29; or comparing the monitored optical emissions to a fingerprint of a clean chamber have recited in each of claims 28 and 30. As such, the Applicants respectfully request allowance of these claims.

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CONCLUSION

Thus, the Applicants submit that all claims now pending are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issuance are earnestly solicited.

If, however, the Examiner believes that any unresolved issues still exist, it is requested that the Examiner telephone Mr. Alan Taboada at (732) 935-7100 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

AL TABOADA 12/27/05

Alan Taboada, Attorney
Reg. No. 51,359
(732) 935-7100

Moser IP Law Group
1040 Broad Street, 2nd Floor
Shrewsbury, NJ 07702